

AIR MONITORING...NORCO

A newsletter to keep you updated on the ambient air monitoring program in Norco, Louisiana

What is Air Monitoring . . . Norco?

Air Monitoring . . . Norco is a community project that will establish an ambient air quality monitoring program in Norco, Louisiana. Ambient air is the air breathed over the course of the year. The program is being conducted as a Beneficial Environmental Project (BEP) under the guidance of the Louisiana Department of Environmental Quality (LDEQ). It is also an integral part of the Good Neighbor Initiative (GNI), an effort by Shell and Motiva to improve the quality of life in Norco and create an environment where both the community and the companies can grow and prosper for years to come.

Shell and Motiva are working with the community, LDEQ and technical experts from Tulane and Southern to address community concerns about Norco's air.

In March 2002, a Technical Team and a Communications Team were formed to work on the program. Members of these teams include staff from LDEQ, independent, third-party technical experts from Tulane and Southern universities, community residents and Shell and Motiva employees.

Initially, the Technical Team was charged with determining the location of the air monitors, frequency of monitoring and the list of compounds to monitor. They were also responsible for helping local residents and the Community Industry Panel select a vendor to install the air monitors and collect the samples, as well as identify a third-party laboratory to analyze the data. The current responsibilities of the Technical Team include continued long-term monitoring of the air in Norco and interpretation of air monitoring data.

The Communications Team also helped determine air monitor locations. This team is charged with delivering timely, accurate and meaningful air quality information and data to the community. The team is currently sharing information with the community in a number of ways including community meetings, newsletters and an educational video.

How does the ambient air monitoring project work?

The air monitoring project is made up of two phases:

Phase 1- Assessment and Siting

Phase 2- Long-term Monitor Sampling

Phase 1 data collection has been completed and was conducted to help design the long-term Phase 2 effort. Phase 1 data helped determine the number and locations of Phase 2 monitoring sites, as well as determine which compounds to monitor.

The first stage of Phase 2, which began on March 16, 2003 and ended June 30, 2003, involved long-term monitor sampling; during which a total of 39 samples were collected at each monitoring site.

Phase 2 has four basic steps:

1. Collect air samples at regular time intervals from four permanent air monitors in the Norco community.
2. Validate samples at lab and analyze and interpret sampling data.
3. Compare the measured levels with government air standards.
4. Compare the measured levels with similar data from elsewhere in Louisiana and other states.

What did Phase 2 tell us?

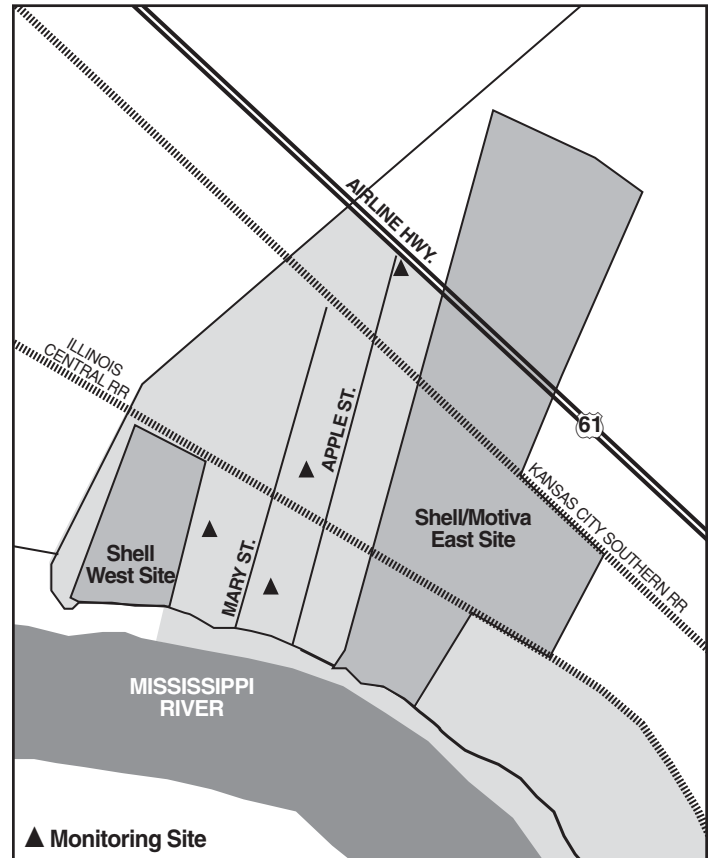
As in Phase 1, the Phase 2 results showed that no compounds were detected at concentration levels above LDEQ ambient air standards. Overall Phase 2 concentrations were also lower than the concentrations identified in Phase 1.

Comparison of Measured Results with LDEQ Standards

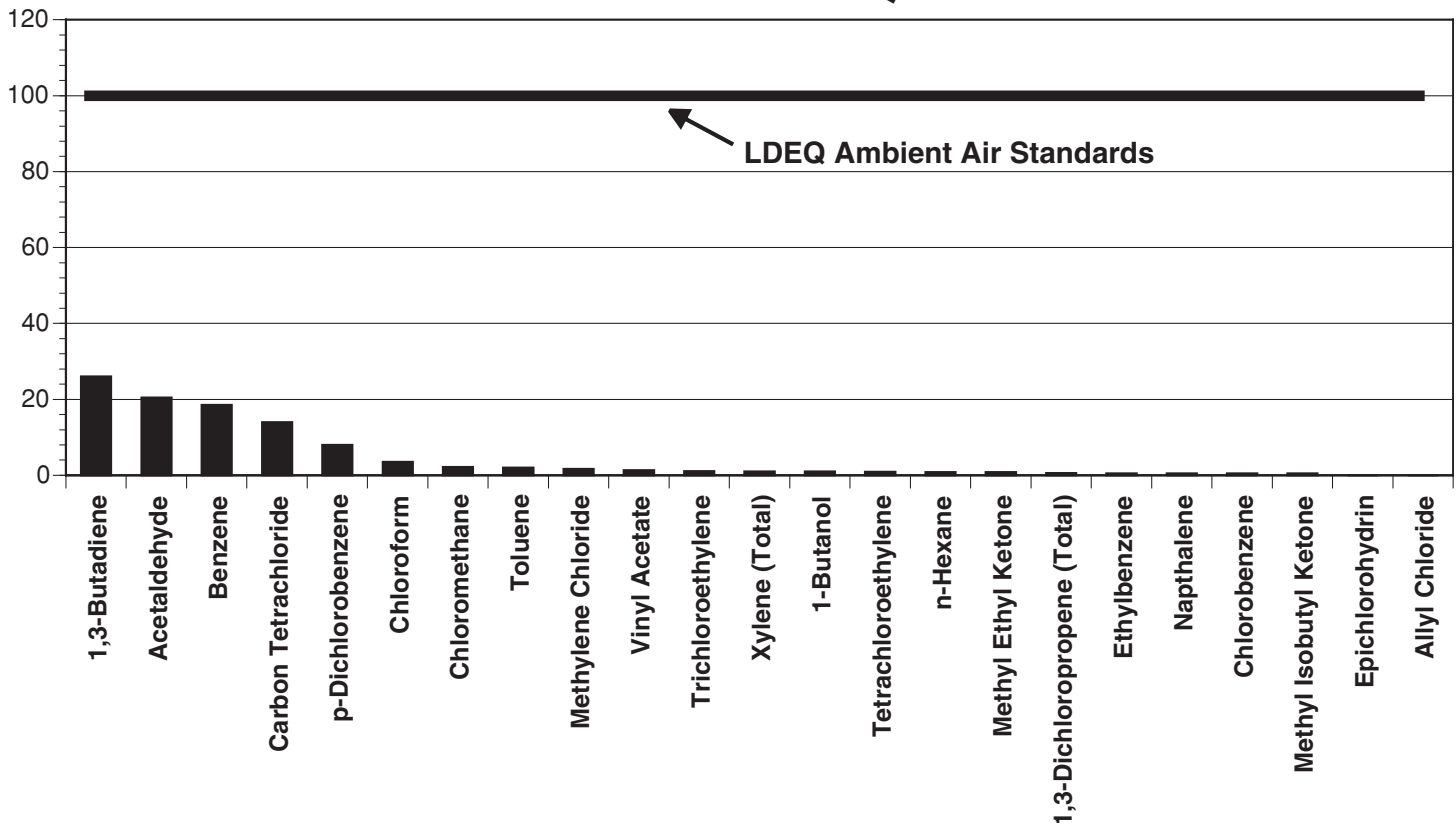
The LDEQ has set ambient air standards for 38 of the compounds that were measured during the Phase 1 and Phase 2 study. These conservative standards are designed to protective human health. Louisiana is one of two states that has ambient air quality results.

The graph below is a statistical comparison of the Phase 2 results to LDEQ ambient air standards. Data indicates that no Phase 2 compounds are expected to exceed LDEQ standards.

Norco Community Ambient Air Monitoring Study Site Locations (Phase 2)



Phase 2 Data Was Below LDEQ Standards*



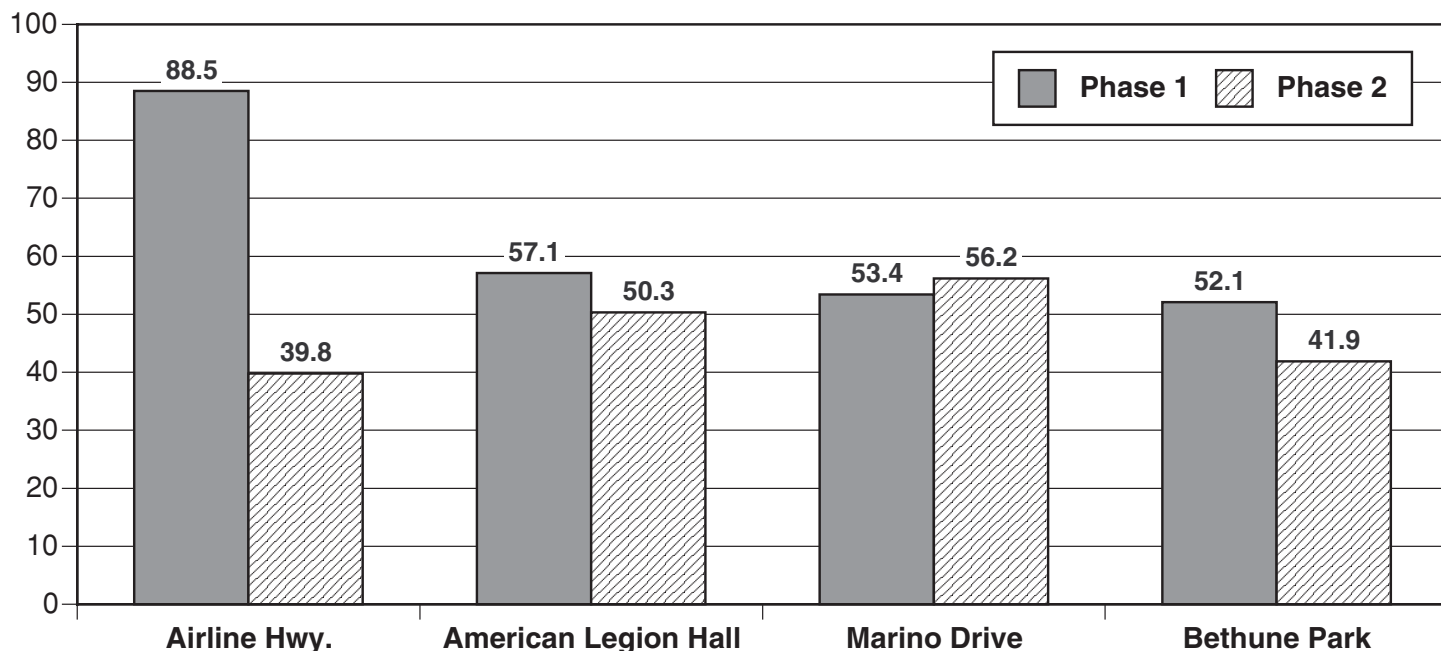
*Visit our Web site for detailed information of all compounds measured.

The Differences in Phase 1 and Phase 2 Data

Overall Phase 2 concentrations were lower than the concentrations identified in Phase 1. While the total compound levels decreased significantly at the Airline Highway monitoring site, total levels at the

remaining three sites did not change significantly. The first quarter Phase 2 data indicates that the compounds measured were reasonably uniform throughout Norco.

The Difference Between Phase 1 and Phase 2 Data

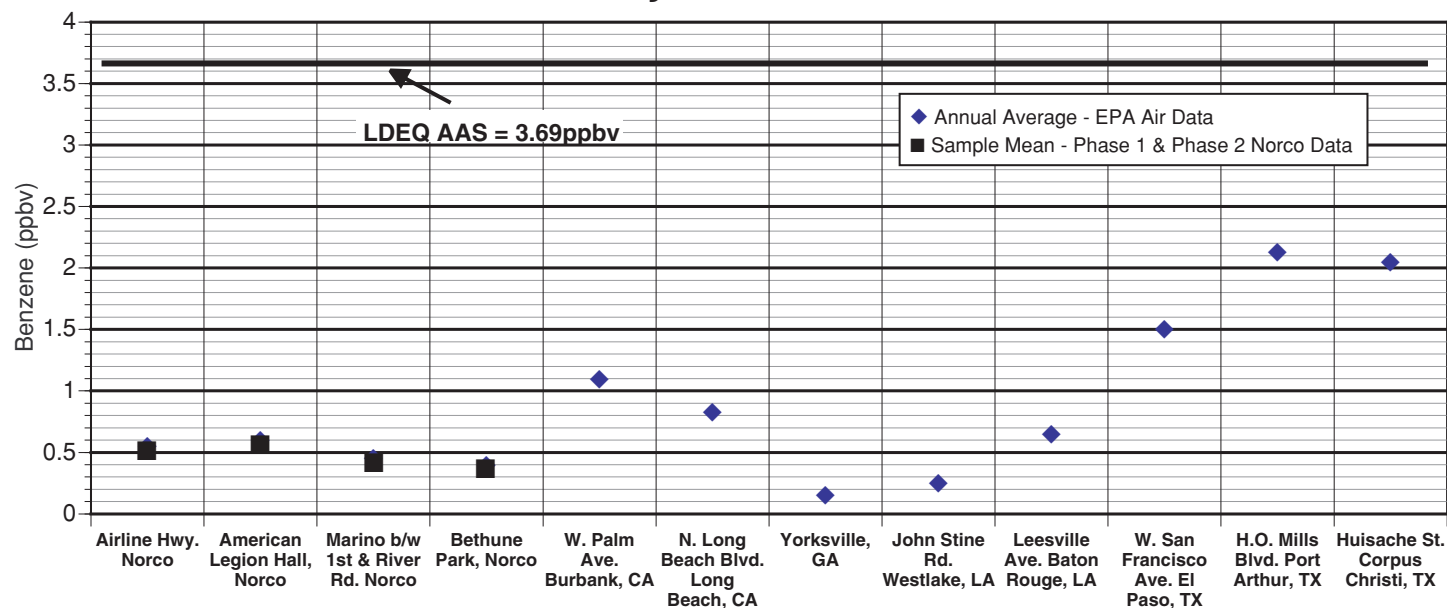


Comparison with Measurement Data for Other Cities

The average levels of most of the more abundant compounds measured in Norco during Phase 2 study were in the same general range as the levels

measured elsewhere in Louisiana and other states by LDEQ and other state agencies. An example of one of these compounds—benzene—is shown below.

Norco's Air Quality is Similar to Other Cities*



*These are short-term averages compared to annual averages. Visit our Web site for detailed information.



Q What is the air monitoring program all about?

A The program is designed to collect data important for evaluating long-term air quality in Norco. This information will be available to researchers and the public on a regular basis for study and analysis. If the monitoring discovers problem areas, Shell and Motiva are committed to finding and eliminating the source.

Monitoring will not be expected to address effects from short-term events, nor will it provide any information on odors. At this time, no other companies in the area are participating in this program.

Q Who will be taking the samples from the air monitors and analyzing the results?

A URS, an independent third party consultant will continue to collect the air samples and analyze the results.

Q How do samples from the air monitors reflect what is happening at my house?

A The first quarter of Phase 2 data indicates that the air quality is reasonably uniform in the Norco community. However, more data over a longer period of time will provide a better picture of the air quality throughout Norco.

Q How safe are the ambient air quality standards?

A Ambient air standards are very conservative. Even if air samples are slightly above standards, the standards are still protective of human health.

Q What are the reasons for the difference in Phase 1 and Phase 2 data results?

A Both Phase 1 and Phase 2 data results indicated that no compounds were detected at concentration levels above LDEQ ambient air standards. Overall,

Phase 2 compound concentrations were also lower than the compound concentrations identified in Phase 1.

The difference between Phase 1 and Phase 2 data results are likely due to the fact that wind patterns during Phase 1 were somewhat different than the wind patterns observed in Phase 2. More data over a longer period of time will give us a better picture of the air quality in Norco.

Q If I have questions, where do I get those answered, and how are you going to share sampling results with the community?

A Outreach will include such things such as small group meetings, newsletters, elementary school programs, and Web site postings. We will continue to make ambient air quality monitoring a regular part of Shell and Motiva's communications outreach. We also recognize there will be questions about community health related to air quality, so the Tulane University School of Public Health will be conducting outreach in Norco on those issues.

Q Since the sampling indicates air quality is normal, why do we still need to monitor?

A Three months is a relatively short time frame to gather enough information about the air quality in an area. More data over a longer period of time will provide a better picture of the air quality in Norco.

Q What happens next?

A Two full years of ambient air sampling will occur at the central air monitor location near the American Legion Hall. There are three supplemental monitors that will gather additional data for at least one full year. These supplemental monitors are located near Airline Highway, on Marino Drive near River Road, and at Bethune Park in Diamond.

Where do I get more information?

For more information on *Air Monitoring . . . Norco*, please contact Dwayne LaGrange at 504-465-7180, the Tulane Info-Line at 504-585-6074 or Walt Crow (URS) at 713-914-6688. Project newsletters will be sent to Norco residents, and community meetings will be held to answer questions and address concerns on a regular basis. For technical information and complete reports, please visit www.shellus.com/norco or www.norcorefinery.com.